

HASTELLOY C-4

Chemical Composition			Specifications	Key Features	Typical Applications
Element	Min %	Max %	ASTM B574 ASTM B575 ASTM B619	Excellent resistance to stress-corrosion cracking and to oxidizing atmospheres at high temperature Exceptional resistance to a wide variety of chemical process environments including, hot contaminated mineral acids, solvents, chlorine, formic and acetic acids and salt waters	Chemical processing
Cr	14.00	18.00			
Mo	14.00	17.00			
Fe	-	3.00	Designations		
C	-	0.015	W.Nr. 2.4610 UNS N06455 AWS 052		
Si	-	0.08			
Co	-	2.00			
Mn	-	1.00			
P	-	0.04			
S	-	0.03			
Ti	-	0.70			
Ni	BAL				

Density	8.64 g/cm ³	0.312 lb/in ³
Melting Point	1399 °C	2550 °F
Coefficient of Expansion	10.8 µm/m °C (20 – 100 °C)	6.0 x 10 ⁻⁶ in/in °F (70 – 212 °F)
Modulus of Rigidity	81.2 kN/mm ²	11777 ksi
Modulus of Elasticity	212.4 kN/mm ²	30807 ksi

Heat Treatment of Finished Parts					
Condition as supplied by Alloy Wire	Type	Temperature		Time (Hr)	Cooling
		°C	°F		
Annealed or Spring Temper	Stress Relieve	400 – 450	750 – 840	2	Air

Properties				
Condition	Approx. tensile strength		Approx. operating temperature	
	N/mm ²	ksi	°C	°F
Annealed	800 – 1100	116 – 159	-200 to +400	-330 to +750
Spring Temper	1300 – 1700	189 – 247	-200 to +400	-330 to +750

The above tensile strength ranges are typical. If you require different please ask.